

OPINION 1897

***Glomeris* Latreille, 1802 (Diplopoda), *Armadillo* Latreille, 1802, *Armadillidium* Brandt in Brandt & Ratzeburg, [1831] and *Armadillo vulgaris* Latreille, 1804 (currently *Armadillidium vulgare*) (Crustacea, Isopoda): generic and specific names conserved**

Keywords. Nomenclature; taxonomy; Diplopoda; Isopoda; GLOMERIDAE; ARMADILLIDAE; ARMADILLIDIIDAE; millipedes; woodlice; *Glomeris*; *Armadillo*; *Armadillidium*; *Armadillidium vulgare*; Europe; North Africa; western Asia.

Ruling

- (1) Under the plenary powers:
 - (a) all previous fixations of type species for the nominal genus *Armadillo* Latreille, 1802 are hereby set aside and *Armadillo officinalis* Duméril, 1816 is designated as the type species;
 - (b) the following names are hereby suppressed:
 - (i) the generic name *Armadillo* Cuvier, 1792, and all uses of the name *Armadillo* prior to the publication of *Armadillo* Latreille, 1802, for the purposes of both the Principle of Priority and the Principle of Homonymy;
 - (ii) the following specific names for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:
 - (A) *armadillo* Linnaeus, 1758, as published in the binomen *Oniscus armadillo*;
 - (B) *variegatus* Villers, 1789, as published in the binomen *Oniscus variegatus*;
 - (C) *cinereus* Zenker in Panzer, 1799, as published in the binomen *Oniscus cinereus*.
- (2) The following names are hereby placed on the Official List of Generic Names in Zoology:
 - (a) *Glomeris* Latreille, 1802 (gender: feminine), type species by subsequent designation by Jeekel (1971) *Oniscus pustulatus* Fabricius, 1781;
 - (b) *Armadillo* Latreille, 1802 (gender: masculine), type species by designation in (1)(a) above *Armadillo officinalis* Duméril, 1816;
 - (c) *Armadillidium* Brandt in Brandt & Ratzeburg, [1831] (gender: neuter), type species by subsequent designation by Fowler (1912) *Armadillidium commutatum* Brandt in Brandt & Ratzeburg, [1831] (a junior subjective synonym of *Armadillo vulgaris* Latreille, 1804).
- (3) The following names are hereby placed on the Official List of Specific Names in Zoology:
 - (a) *pustulatus* Fabricius, 1781, as published in the binomen *Oniscus pustulatus* (specific name of the type species of *Glomeris* Latreille, 1802);
 - (b) *officinalis* Duméril, 1816, as published in the binomen *Armadillo officinalis* (specific name of the type species of *Armadillo* Latreille, 1802);
 - (c) *vulgaris* Latreille, 1804, as published in the binomen *Armadillo vulgaris* (senior subjective synonym of *Armadillidium commutatum* Brandt in

Brandt & Ratzeburg, [1831], the type species of *Armadillidium* Brandt in Brandt & Ratzeburg, [1831]).

- (4) The following names are hereby placed on the Official List of Family-Group Names in Zoology:
 - (a) ARMADILLIDAE Brandt, [1831] (type genus *Armadillo* Latreille, 1802);
 - (b) ARMADILLIDIIDAE Brandt, 1833 (type genus *Armadillidium* Brandt, [1831]).
- (5) The following names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology:
 - (a) *Armadillo* Cuvier, 1792, as suppressed in (1)(b)(i) above;
 - (b) *Orthonus* Miers, [1878] (a junior objective synonym of *Armadillo* Latreille, 1802).
- (6) The following names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology:
 - (a) *armadillo* Linnaeus, 1758, as published in the binomen *Oniscus armadillo* and as suppressed in (1)(b)(ii)(A) above;
 - (b) *variegatus* Villers, 1789, as published in the binomen *Oniscus variegatus* and as suppressed in (1)(b)(ii)(B) above;
 - (c) *cinereus* Zenker in Panzer, 1799, as published in the binomen *Oniscus cinereus* and as suppressed in (1)(b)(ii)(C) above;
 - (d) *globator* Cuvier, 1792, as published in the binomen *Oniscus globator* (a junior homonym of *Oniscus globator* Pallas, 1772).

History of Case 2909

An application for the conservation of the generic names *Glomeris* Latreille, 1802 and *Armadillidium* Brandt in Brandt & Ratzeburg, [1831] and the specific name of *Armadillo vulgaris* Latreille, 1804, and for a ruling on the status of the generic name *Armadillo* Latreille, 1802, was received from Dr Pekka T. Lehtinen (*Zoological Museum, University of Turku, Turku, Finland*) and Prof Lipke B. Holthuis (*Nationaal Natuurhistorisch Museum, Leiden, The Netherlands*) on 1 November 1993. After correspondence the case was published in BZN 52: 236–244 (September 1995). Notice of the case was sent to appropriate journals.

Comments in support of the conservation of the name *Armadillo* Latreille, 1802 from three members of the Nomenclature Committee of The Crustacean Society (Dr Marcos Tavares, *Universidade Santa Ursula, Rio de Janeiro, Brazil*; Prof Gary C.B. Poore, *Museum of Victoria, Abbotsford, Victoria, Australia*; and Dr A.B. Williams, *NOAAINMFS Smithsonian Institution, Washington, D.C., U.S.A.*) were published in BZN 53: 120–122 (June 1996). A reply by Dr P.T. Lehtinen to the comments was published in BZN 53: 277–278 (December 1996).

It was noted on the voting paper that the application had been presented in three sections. The first section sought the conservation of the generic names *Glomeris* Latreille, 1802 (Diplopoda, family GLOMERIDAE Brandt, 1833) and *Armadillidium* Brandt in Brandt & Ratzeburg, [1831] and, by suppression of the unused specific name of *Oniscus armadillo* Linnaeus, 1758, the conservation of the specific name of *Armadillo vulgaris* Latreille, 1804 (Crustacea, Isopoda, family ARMADILLIDIIDAE Brandt, 1833). This section was common ground to both authors and was submitted jointly. The second section, which advocated the adoption of *Pentheus* C.L. Koch, [1841] in place of *Armadillo* Latreille, 1802 (Crustacea, Isopoda, family

ARMADILLIDAE Brandt in Brandt & Ratzeburg, [1831]) was submitted by Dr P.T. Lehtinen. The final part, an alternative which sought the conservation of *Armadillo* Latreille, was by Prof L.B. Holthuis.

Cuvier (1792) used the name *Armadillo* for a diplopod genus. This had remained unused, whilst *Glomeris* had consistently been used for the genus. Jeekel's (1971) type species designation rendered *Glomeris* a junior objective synonym of *Armadillo* Cuvier but he strongly advised the continued usage of *Glomeris*. This was followed by Hoffmann (1979; para. 8 of the application), who cited Jeekel. The suppression of *Armadillo* Cuvier was proposed to maintain the usage of *Glomeris*.

In 1802 Latreille used the name *Armadillo* for an isopod, citing *Oniscus armadillo* Linnaeus. He did not mention Cuvier and clearly indicated that it was a new genus. As noted in para. 9, *Armadillo* Latreille must be considered a new name. As such it is a junior homonym of *Armadillo* Cuvier.

Latreille (1804) included in *Armadillo* the nominal species *A. vulgaris*, which was probably a renaming (to avoid tautonymy) of *O. armadillo*. Duméril (1816) also used *Armadillo* for an isopod genus and included *vulgaris* and the new taxon *A. officinalis*. Brandt ([1831]) retained *Armadillo* for the single species *officinalis* and placed *vulgaris* in the new genus *Armadillidium*. This taxonomic arrangement, although resulting in nomenclature which is incorrect according to modern rules, has been followed by all subsequent authors, who continued to use both generic names and the family names ARMADILLIDAE and ARMADILLIDIIDAE without confusion. Budde-Lund (1904) designated *officinalis* Duméril, 1816 as the type species of *Armadillo*, a designation which was invalid (since *officinalis* was not mentioned by Latreille) but which reflected the sense in which *Armadillo* had been used since the very early 19th century. *Pentheus* C.L. Koch, [1841] was the first available junior synonym of *Armadillo* Latreille as used since Brandt, [1831].

The case was offered for a ruling by means of two votes. Vote (1) related to the conservation, proposed by both applicants, of the generic names *Glomeris* Latreille, 1802 and *Armadillidium* Brandt in Brandt & Ratzeburg, [1831], and of the specific name of *Armadillo vulgaris* Latreille, 1804 (items (1)(b)(i)–(iii), (2)(a)–(b), (3)(a)–(b), (4), (5)(a) and (6)(a)–(d) in para. 13 on BZN 52: 241). Vote (2) was for either:

Proposal A - the suppression for priority but not homonymy of the name *Armadillo* Cuvier, 1792 and replacement of *Armadillo* Latreille, 1802 by *Pentheus* C.L. Koch, [1841], as proposed by Dr Lehtinen (items (1)(a), (2)(c), (3)(c) and (5)(b) in para. 13 on BZN 52: 241); or:

Proposal B - the total suppression of *Armadillo* Cuvier and the conservation of *Armadillo* Latreille with the designation under the plenary powers of *Armadillo officinalis* Duméril, 1816 as the type species, in accordance with usage, as proposed by Prof Holthuis (items (1)(a)–(b), (2)(b), (3)(b), (4)(a) and (5)(b) in para. 15 on BZN 52: 242).

Decision of the Commission

On 1 December 1997 the members of the Commission were invited to vote. At the close of the voting period on 1 March 1998 the votes were as follows:

Vote 1. Affirmative votes — 22: Bock, Bouchet, Brothers, Cocks, Eschmeyer, Heppell, Kabata, Kerzhner, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Mawatari, Minelli, Nielsen, Nye, Papp, Patterson, Savage, Song, Štys

Negative votes — none.

Vote 2. *Proposal A* — 3: Lehtinen, Papp, Savage

Proposal B — 19: Bock, Bouchet, Brothers, Cocks, Eschmeyer, Heppell, Kabata, Kerzhner, Kraus, Macpherson, Mahnert, Martins de Souza, Mawatari, Minelli, Nielsen, Nye, Patterson, Song and Štys.

No votes were received from Dupuis and Schuster.

Cogger and Ride were on leave of absence.

Voting for Proposal (2)(B), Heppell commented: 'I agree that the solution proposed by Holthuis is the better one to resolve the nomenclatural problems surrounding *Armadillo* Latreille, but I believe that some general issues raised in this case have never been seriously addressed by the Commission. It does seem unscientific to place the conserved name *Armadillo* on the Official List still attached to its original date and authorship 'Latreille, 1802'. As pointed out by Lehtinen, *Armadillo* Latreille was based on the species now known as *Armadillidium vulgare*, and the proposed type species *Armadillo officinalis* was not originally included and possibly not known to Latreille. We are manifestly dealing with what is actually a new nominal genus defined not by any description or nomenclatural act by Latreille. I suggest that in such cases, which are not infrequent among applications to the Commission, the conserved name should be attributed to [ICZN, Opinion No., date], rather than to the original author and date. This would draw attention to the revised concept in which the original composition of the taxon is no longer relevant, and for which reference to the original author and date is misleading'. Voting for Proposal (2)(A), Lehtinen commented: 'The name *Armadillo* Latreille originally referred to the genus that is now known as *Armadillidium*. Wide use of *Armadillo* in a different sense is not in accord with the Code, and involves the abandonment of basic principles of nomenclature. No current species of *Armadillo* was originally included in the genus'. Savage commented: 'Since 'armadillo' is the common name of an entire group of mammals, use of the name *Pentheus* C.L. Koch, [1841] seems logical'.

Editorial note. Commissioners Heppell and Lehtinen have commented adversely on the fact that *Armadillo*, as defined by the type species *Armadillo officinalis* Duméril, 1816 designated in the present ruling, is different from the original concept of the nominal genus by Latreille (1802), and yet the latter's authorship and date are being retained. It is indeed the case that this procedure is an artificial device, but it is one which has been used for some 70 years in order to maintain entrenched usage (and authorship and date attribution) of names. The citation of a name (in this case *Armadillo*) with the authorship of the Commission and the date of the ruling would have considerable disadvantages: apart from being a new procedure (and thus inconsistent with all the many precedents), the late date would not signify the precedence of the name, and the name would have to be explicitly protected from previously published synonyms and homonyms. Zoologists might reasonably object to the Commission becoming the 'author' of a name which had actually been published and adopted long ago.

Two methods have been used by the Commission to stabilize nomenclature in cases where a name has been accepted in a sense different from that of the original author. In cases where the difference is relatively minor, having regard to the taxonomy of the relevant period, an appropriate name-bearing type has been designated under the plenary powers but the authorship and date have been retained. In cases where the taxonomic change has been more radical, the later application of the name has been

conserved by the suppression of all previous uses for purposes of both priority and homonymy. In the present instance a possible course would have been to conserve *Armadillo* with the authorship of Brandt ([1831]), but the name has never been cited in that way and it was not proposed that it should be.

Original references

The following are the original references to the names placed on Official Lists and Official Indexes by the ruling given in the present Opinion:

- ARMADILLIDAE Brandt, [1831], in Brandt & Ratzeburg, *Medizinische Zoologie oder getreue Darstellung und Beschreibung der Thiere die in der Arzneimittellehre in Betracht kommen, in systematischer Folge herausgegeben*, vol. 2, p. 80.
- ARMADILLIDAE Brandt, 1833, *Bulletin de la Société Impériale des Naturalistes de Moscou*, 6: 184.
- Armadillidium* Brandt, [1831], in Brandt & Ratzeburg, *Medizinische Zoologie oder getreue Darstellung und Beschreibung der Thiere die in der Arzneimittellehre in Betracht kommen, in systematischer Folge herausgegeben*, vol. 2, p. 81.
- Armadillo* Cuvier, 1792, *Journal d'Histoire Naturelle* (Paris), 2(13): 27.
- Armadillo* Latreille, 1802, *Histoire naturelle, générale et particulière des crustacés et des insectes*, vol. 3, p. 43.
- armadillo*, *Oniscus*, Linnaeus, 1758, *Systema Naturae*, Ed. 10, vol. 1, p. 637.
- cinereus*, *Oniscus*, Zenker in Panzer, 1799, *Fauna insectorum Germanicae initia, oder Deutschlands Insecten ...* Heft 62, no. 22.
- globator*, *Oniscus*, Cuvier, 1792, *Journal d'Histoire Naturelle* (Paris), 2(13): 24.
- Glomeris* Latreille, 1802, *Histoire naturelle, générale et particulière des crustacés et des insectes*, vol. 3, p. 44.
- officinalis*, *Armadillo*, Duméril, 1816, *Dictionnaire des Sciences Naturelles*, Ed. 2, vol. 3, p. 117.
- Orthonus* Miers, [1878], *Proceedings of the Zoological Society of London*, 1877(43): 664.
- pustulatus*, *Oniscus*, Fabricius, 1781, *Species insectorum ...*, vol. 1, p. 379.
- variegatus*, *Oniscus*, Villers, 1789, *Caroli Linnaei entomologia, faunae Suecicae descriptionibus aucta*, vol. 4, p. 188.
- vulgaris*, *Armadillo*, Latreille, 1804, *Histoire naturelle, générale et particulière des crustacés et des insectes*, vol. 7, p. 47.

The following is the reference for the designation of *Oniscus pustulatus* Fabricius, 1781 as the type species of the nominal genus *Glomeris* Latreille, 1802:

Jeckel, C.A.W. 1971. *Monografieën van de Nederlandse Entomologische Vereniging*, 5: 14.

The following is the reference for the designation of *Armadillidium commutatum* Brandt in Brandt & Ratzeburg, [1831] (a junior subjective synonym of *Armadillo vulgaris* Latreille, 1804) as the type species of the nominal genus *Armadillidium* Brandt in Brandt & Ratzeburg, [1831]:

Fowler, H.W. 1912. *Report of the New Jersey State Museum*, 1911: 225.